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EXAMINER

ROCHE, TRENTON J

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/560,371  
Filing Date: April 28, 2000  
Appellant(s): MEREDITH ET AL.

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Carlos P. Garritano  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed March 28, 2006 appealing from the Office action mailed November 1, 2005.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The Examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

Appellants' statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

Appellants' statement of the grounds of rejection to be reviewed on appeal is correct.

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Claims 8-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,930,512 to Boden et al. (hereinafter "Boden"), in view of U.S. Patent 6,598,219 to Lau.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5,930,512	Boden et al.	05-1999
6,598,219	Lau	07-2003

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**Claims 8-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,930,512 to Boden et al. (hereinafter "Boden"), in view of U.S. Patent 6,598,219 to Lau.**

**Regarding claim 8:**

Boden discloses:

- a system that facilitates modeling of business processes comprised of a plurality of business operations comprising a computer-readable medium and a plurality of computer-executable files ("a computer implemented method and system for

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- implementing a workflow process server. A collection of processes defining a business workflow is generated...” in col. 2 lines 51-54)
- a scheduling component that employs a dataflow diagram to define a flow of business operations, the dataflow diagram includes actions coupled via data flowing between them (Note at least Figure 12 and the corresponding sections of the disclosure. Further, “In a FlowMark process, the following are defined: how work is to progress from one activity to the next; which persons are to perform activities and what programs they are to use...” in col. 4 lines 57-60, “The flow of control through a running process determines the sequence in which activities are executed” in col. 5 lines 63-64. Finally, “The buildtime client constructs processes defining the flow and constructs of a work process, including activities, programs or processes, people, roles, and control data connectors” in col. 13 lines 22-25)
  - a binding component that defines the business operations through a schedule message, a port connection, a port and a message interface with a component outside the schedule (“A program activity has a program assigned to perform it. The program is invoked when the activity is started...” in col. 5 lines 21-22. Further, “In the FlowMark workflow manager, program means a computer-based application program that supports the work to be done in an activity...” in col. 7 lines 29-31. As the activities invoke a program to perform the necessary steps, and the program (interpreted as a component) is a computer-based application program *supporting* (emphasis added) the work to be done, then the computer-based application program is “outside” of the diagram. Subsequently, the activities of the workflow diagram must communicate with this program through standard computing

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interfaces in a computer system, which would inherently include a scheduling message (message directing the program to execute), a port connection, port, and message interface (the means by which the program is “invoked” by the activity) substantially as claimed. While Boden discloses the use of HTML with scheduling and binding (Note Figure 6, item 150 and the corresponding sections of the disclosure), Boden does not explicitly disclose the scheduling component and binding component employing XML. Lau discloses in an analogous software modeling system the ability to express a meta data model using XML (“a data model expressed in the form of a document according to a meta data language...said data elements being arranged according to a meta data model, wherein said meta data model mirrors the sequence of tasks defined in the user interface...meta data language may comprise XML...” in col. 3 lines 5-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ XML with the scheduling and binding components of the system disclosed by Boden, as this would integrate with the use of HTML and, by representing the model using an open standard, conventional parsers for the open standard may be used to retrieve the model information, as noted by Lau in col. 2 lines 33-35.

**Regarding claim 9:**

The rejection of claim 8 is incorporated, and further, Boden discloses the binding component further defines technology specific information for binding business operations to at least one technological component as claimed (“A program activity has a program assigned to perform it. The program is invoked when the activity is started...” in col. 5 lines 21-22. Further, “In the FlowMark workflow manager, program means a computer-based

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application program that supports the work to be done in an activity...” in col. 7 lines 29-31.)

**Regarding claim 10:**

The rejection of claim 8 is incorporated, and further, Boden discloses binding a single business operation to a plurality of technological components as claimed (“The process can consist of just one activity or of many activities and blocks” in col. 8 lines 32-33. As noted in the rejection of claim 1, activities have programs assigned to support them.)

**Regarding claim 11:**

The rejection of claim 8 is incorporated, and further, Boden discloses a binding file that provides port and message mapping between operations and between business operations and technological components as claimed (“HTML representation of those processes...” in col. 13 line 56. Further, note Figure 6, item 150 and the corresponding sections of the disclosure.)

**Regarding claim 12:**

The rejection of claim 8 is incorporated, and further, Boden discloses the binding component further defines message structure and declaring messages as claimed (Note the rejection of claim 11. HTML defines a structure for messages.)

**Regarding claims 13 and 14:**

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The rejection of claim 8 is incorporated, and further, note the rejection regarding claim 11.

The HTML representation of the processes and overall workflow model define semantics and conditionals of the model.

**Regarding claim 15:**

The rejection of claim 8 is incorporated, and further, Boden discloses a second binding component that binds the business operations with a second component outside of the dataflow diagram as claimed (“executing the processes is accomplished by (1) inverse transforming the related HTML page (also known as a HTML process definition) to the language of a workflow server...” in col. 2 lines 59-62)

**Regarding claim 16:**

Boden discloses:

- a system for facilitating modeling of business processes comprised of a plurality of business operations, the system comprising a computer-readable medium and a plurality of computer-executable files (“a computer implemented method and system for implementing a workflow process server. A collection of processes defining a business workflow is generated...” in col. 2 lines 51-54)
- a scheduling component that defines the flow of business operations in a schedule (Note at least Figure 12 and the corresponding sections of the disclosure. Further, “In a FlowMark process, the following are defined: how work is to progress from one activity to the next; which persons are to perform activities and what programs they are to use...” in col. 4 lines 57-60, “The flow of control through a running



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process determines the sequence in which activities are executed” in col. 5 lines 63-

64. Finally, “The buildtime client constructs processes defining the flow and constructs of a work process, including activities, programs or processes, people, roles, and control data connectors” in col. 13 lines 22-25)

- a binding component that separates the schedule from implementations of a workflow and maps actions in the schedule to calls on at least one technological component (“A program activity has a program assigned to perform it. The program is invoked when the activity is started...” in col. 5 lines 21-22. Further, “In the FlowMark workflow manager, program means a computer-based application program that supports the work to be done in an activity...” in col. 7 lines 29-31.)

substantially as claimed. While Boden discloses the use of HTML with scheduling and binding (Note Figure 6, item 150 and the corresponding sections of the disclosure), Boden does not explicitly disclose the scheduling component and binding component being based in XML. Lau discloses in an analogous software modeling system the ability to express a meta data model using XML (“a data model expressed in the form of a document according to a meta data language...said data elements being arranged according to a meta data model, wherein said meta data model mirrors the sequence of tasks defined in the user interface...meta data language may comprise XML...” in col. 3 lines 5-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ XML with the scheduling and binding components of the system disclosed by Boden, as this would integrate with the use of HTML and, by representing the model using an open standard, conventional parsers for the open standard may be used to retrieve the model information, as noted by Lau in col. 2 lines 33-35.

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**Regarding claim 17:**

The rejection of claim 16 is incorporated, and further, note the rejection regarding claim 10.

**Regarding claim 18:**

The rejection of claim 16 is incorporated, and further, Boden discloses business operations as actions connected by data flowing between them and actions are ports and messages wherein a binding file provides virtual port and message mapping between business operations and technological components as claimed (Note at least Figure 12 and the corresponding sections of the disclosure. Further, “In a FlowMark process, the following are defined: how work is to progress from one activity to the next; which persons are to perform activities and what programs they are to use...” in col. 4 lines 57-60, “The flow of control through a running process determines the sequence in which activities are executed” in col. 5 lines 63-64. Finally, “The buildtime client constructs processes defining the flow and constructs of a work process, including activities, programs or processes, people, roles, and control data connectors” in col. 13 lines 22-25)

**Regarding claim 19:**

The rejection of claim 16 is incorporated, and further, note the rejection regarding claim 12.

**Regarding claim 20:**

The rejection of claim 16 is incorporated, and further, note the rejection regarding claim 13.

**Regarding claim 21:**

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The rejection of claim 16 is incorporated, and further, note the rejection regarding claim 14.

**Regarding claim 22:**

Boden discloses:

- a data flow module that allows a user to define a flow of business operations in a file that is utilized with a plurality of disparate business implementations (Note at least Figure 12 and the corresponding sections of the disclosure. Further, “In a FlowMark process, the following are defined: how work is to progress from one activity to the next; which persons are to perform activities and what programs they are to use...” in col. 4 lines 57-60, “The flow of control through a running process determines the sequence in which activities are executed” in col. 5 lines 63-64. Finally, “The buildtime client constructs processes defining the flow and constructs of a work process, including activities, programs or processes, people, roles, and control data connectors” in col. 13 lines 22-25)
- a binding module that allows a user to define a link between the file with business operations and the plurality of disparate business implementations (“A program activity has a program assigned to perform it. The program is invoked when the activity is started...” in col. 5 lines 21-22. Further, “In the FlowMark workflow manager, program means a computer-based application program that supports the work to be done in an activity...” in col. 7 lines 29-31.)

substantially as claimed. While Boden discloses the use of HTML with scheduling and binding (Note Figure 6, item 150 and the corresponding sections of the disclosure), Boden does not explicitly disclose the scheduling component and binding component utilizing

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XML. Lau discloses in an analogous software modeling system the ability to express a meta data model using XML (“a data model expressed in the form of a document according to a meta data language...said data elements being arranged according to a meta data model, wherein said meta data model mirrors the sequence of tasks defined in the user interface...meta data language may comprise XML...” in col. 3 lines 5-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ XML with the scheduling and binding components of the system disclosed by Boden, as this would integrate with the use of HTML and, by representing the model using an open standard, conventional parsers for the open standard may be used to retrieve the model information, as noted by Lau in col. 2 lines 33-35.

**Regarding claim 23:**

The rejection of claim 22 is incorporated, and further, Boden discloses the binding module allowing the user to specify the business implementation as claimed (“defining process and activity settings...” in col. 6 lines 61-62)

**Regarding claim 24:**

The rejection of claim 22 is incorporated, and further, Boden discloses allowing the user to specify programmable semantics as claimed (Note the rejection regarding claim 23)

**Regarding claim 25:**

Note the rejection regarding claim 22.

### **(10) Response to Argument**

#### **1. Rejection of claims 8, 16 and 22 under 35 U.S.C. § 103(a)**

Starting on page 5 of the brief, Appellants argue that while Boden discloses invoking a program when an assigned program activity starts, Boden does not teach or reasonably suggest a binding component that binds the plurality of business operations through a schedule message, a port connection, a port and a message interface with a component outside of the dataflow diagram, and that “there is no indication that the mentioned activities are separated from the workflow or dataflow diagram.” (page 5 of the brief)

In review, Boden discloses a workflow modeling system comprising a process diagram and the settings that define the logic behind the components of the diagram. (col. 4 lines 16-18) An example of the graphical process diagram is shown in Figures 1-3 and 12. The figures show a number of business operations represented by activities in the workflow system. An activity “represents a piece of work...” (col. 5 lines 6-7), and program activities have “a program assigned to perform it. The program is invoked when the activity is started in a fully automated workflow...” (col. 5 lines 22-24) Finally, “In the FlowMark workflow manager, program means a *computer-based application program that supports* (emphasis added) the work *to be done* (emphasis added) in an activity...” (col. 7 lines 29-31) As such, Boden discloses that activities, which are graphically represented in the process diagram, do not actually do any work themselves; rather, they *invoke* (emphasis added) though an interface means various associated computer-based application programs, thereby performing the

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work to be done. Consequently, the Examiner stated in the Advisory Action of January 26, 2006 that because the graphically displayed activities *invoke* (emphasis added) computer-based applications designated for *supporting* (emphasis added) the business operations represented by the activities, the program applications are thus “outside” or otherwise separated from the dataflow diagram, since it becomes clear that the activities in the diagram are not capable of performing the required steps themselves.

Appellants, however, disagree with this interpretation, and state on page 5 of the brief, “The cited reference still fails to teach or suggest the aspect noting separation of business operations from the dataflow diagram, as claimed. The reference does not indicate that the program is bound to a component outside a dataflow diagram, but instead seems to be incorporated into the program and process activities.” Accordingly, in an attempt to further clarify how the Examiner interprets this separation of the model to a component “outside” the diagram, the Examiner will go into greater detail regarding the interpretation.

It should be initially noted that Appellants admit that Boden discloses invoking a program “when the assigned program activity starts...and adequately supports the work of the activity.” (page 5 of the brief). Thus, we can assume that Appellants agree with the assertion that activities on the diagram do not perform any work themselves. Referring again to Figures 1-3 and 12, a process diagram is shown. Specifically, exemplary Figure 1 shows a process diagram comprising a number of activities, (e.g. elements 302, 304, 306). “The activities of the process are laid out and connected in sequence.” (col. 9 lines 21-22) Looking at the diagram, we see that the diagram is just that; a diagram showing activities of the process, simply represented by circles, squares, solid lines and dashed lines. As noted above, a program activity (circle, square on the diagram) has a program assigned to perform it, which the Examiner interprets as the “component” required by the claim limitation, and as

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further noted above and as stated by Appellants, these programs are computer-based application programs invoked by the activity for doing work. Boden specifically makes reference to the fact that the activities, which are represented by the circles and squares of the diagram, have associated therewith programs *which must be invoked* (emphasis added) to perform the required steps. Through the process of invocation, an activity on the diagram is bound, via an interface, to a program assigned to perform the work of the activity. Furthermore, the diagram does not physically show any representation of the programs to be invoked. The activities are not the programs, the lines are not the programs, nothing on the diagram represents the programs, consequently, the programs must be “outside” of the diagram, and are bound to the activities via a binding interface. As such, the Examiner respectfully contends that Boden discloses business operations (the activities) being coupled with a component (computer-based software program) “outside” of the dataflow diagram as required by the independent claims.

In reference to independent claim 8, Appellants state that the Examiner “erroneously contends that Lau discloses an analogous software model employing XML...” (page 6 of the brief), and further asserts that “The inherent characterizations of the XML language itself do not provide a motivation to combine the language of Lau with the model of Boden et al. It is not obvious to one of ordinary skill in the art to employ the XML language to a scheduling component and a binding component simply because Lau appears to discuss the generic advantages of the language with respect to individual data elements.” (page 6 of the brief) Primarily, the Examiner interprets this argument to be a general allegation of patentability, as Appellants simply assert that the motivation provided by the Examiner is not sufficient to combine the references, without specifically indicating how the motivation provided is in

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error. Additionally, the Examiner notes that Boden already discloses scheduling and binding components utilizing HTML, and the reference of Lau was brought in to show that the replacement of one markup language (HTML) with a different markup language (XML) would have been an obvious modification, in which case generic advantages of the XML language would be sufficient motivation to combine the references.

For these reasons, the Examiner contends that the rejection regarding independent claims 8, 16 and 22 is proper and should be maintained.

2. **Rejection of claim 25 under 35 U.S.C. § 103(a)**

Appellants present a general assertion that the combination of Boden and Lau fail to teach or reasonably suggest the limitation of a link being provided in a programmable language having XML syntax, relying on assertions presented above concerning the deficiency of Boden and Lau, which the Examiner has addressed. Accordingly, the Examiner considers the rejection proper.

**(11) Evidence Appendix and Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the Examiner in the Related Appeals and Interferences section of this Examiner's answer. Furthermore, the Examiner notes Appellants' correct indication of "None" in the Evidence and Related Proceeding(s) Appendices.



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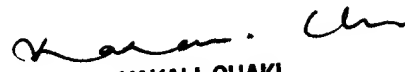
For the above reasons, it is believed that the rejections should be sustained.

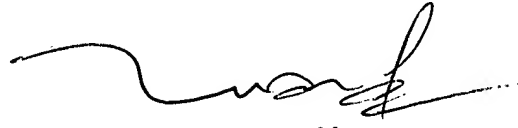
Respectfully submitted,

Trenton J. Roche

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